

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A retractable control knob (1) of the retractable type for an electrical household appliance, said control knob comprising:

a hub having opposite front and rear ends, wherein the rear end is receivable, which, in use, can be angularly connected, in a seat in a housing of that is open at the front of the household appliance and engageable with a on a rotatable control pin of the household appliance in said seat, said control pin being adapted designed to control, on the basis of its own angular position, at least one function of the household appliance;

a grip, which is carried so that it is angularly fixed to, but can slide axially slidably and with the interposition of elastic means on, a first end of the hub opposite to a second end thereof provided for connection with said pin; and means

a locking mechanism for selective axial connection of the grip to the hub, said means being designed to block the grip in one and for blocking said grip at a first axial position and a second axial position axially rearwardly spaced from the first axial position;

an elastic element disposed between said hub and said grip and axially biasing said grip forwardly towards said first axial position, in which the grip projects in cantilever fashion from the first end front end of the hub and is set, in use, at least partially outside said seat, wherein, in said and in a second axial position, in which the grip is fitted on fitted over the front end of said hub and is retracted, in use, within said seat; said knob being characterized in that the grip and the hub are shaped so as to define between them

a closed chamber defined between the grip and the hub and having a volume depending on

a relative that is a function of the axial position of the grip on the hub; and in that, in combination, between the hub and the grip, there are set

a sliding seal means for sealing said air-tight closed chamber in an airtight manner; and

a calibrated restriction orifice being moreover carried by any anyone of said hub and said grip for permanently fluidly connecting an interior the inside of said chamber with the external environment in such a way as to cause for causing a variation in pressure of the air contained in said chamber as a result of an axial movement of the grip with respect to the hub, thereby dampening said axial movement;

wherein

said grip is cup-shaped and has a concavity facing said hub;

said front end of said hub has a hole opening forwardly and having a rear end wall and a side wall projecting forwardly from said end wall;

a rod fixed to and carried by said grip extends axially in cantilever fashion in said hole;

a free end of said rod carries said seal which is an annular fluid-tight gasket in sliding and fluid-tight contact with the side wall of the hole, so that the side wall and the end wall of the hole, together with said free end of the rod, define said closed chamber;

said grip further comprises a sleeve coaxial to said rod, extending axially in cantilever fashion inside the grip, and slidably fitted on an outer side surface of the hub in order to guide axial sliding movement of the grip with respect to the hub;

said rod and said sleeve are integrally connected by a connecting portion so as to form a single connection element fixedly snapped within a seat defined by a further sleeve of the grip, said further sleeve extending in cantilever fashion inside said grip; and

said locking mechanism is provided between the hub and the sleeve at substantially the same axial position as said closed chamber, thereby reducing an overall axial dimension of said knob.

3. (currently amended) The knob according to claim 2, characterized in that claim 1, wherein an end wall of said blind hole is formed by a separating diaphragm with a fitting seat; which is designed to receive, in use, said control pin of the household appliance and is made at the front inside said second end of the hub; said end wall of the blind hole being provided with a said side wall further extends rearwardly beyond said end wall to define said rear end of said hub, said rear end being hollow to receive therein the pin of the appliance; and

the calibrated orifice is formed through said end wall of said hole designed to enable, with a pre-set pressure drop, passage of environmental air away from and into said chamber through said connecting seat.

4. (currently amended) The knob according to claim 1, wherein claim 2, characterized in that

said cup-shaped grip further comprises a sleeve, which extends axially in cantilever fashion inside the grip, in a direction coaxial to said rod, and slidably fitted on an outer side surface of the hub in order to guide axial sliding movement of the grip with respect to the hub;

said elastic element is said first end of the hub having, on the side facing to said grip, a cylindrical portion of small diameter, on which there is fitted a helical spring housed inside said sleeve and compressed and set pack tightened between a an axial shoulder of the hub and an end wall of the cup-shaped grip; and

said side wall of said hole has a front portion which faces said grip and has a reduced outer diameter to define said shoulder.

5. (currently amended) The knob according to claim 1, wherein characterized in that said radial-sealing-gasket is a bell-shaped lipped gasket having its concavity facing the grip.

6. (currently amended) The knob according to claim 5, characterized in thatwherein

said lipped gasket is fixed at the front in cantilever fashion to said free end of said rod via connection means such as a screw.

7. (currently amended) The knob according to claim 5, characterized in that wherein said lipped gasket is retained in an annular seat formed in carried by said free end of said rod inserted by snap action in a radial annular seat made thereon.

8. (canceled)

9. (new) The knob according to claim 1, wherein said locking mechanism is provided between the side wall of the hole and the sleeve at substantially the same axial position as said end wall of said hole.

10. (new) The knob according to claim 9, wherein said locking mechanism comprises a desmodromic path formed in an outer surface of the side wall of the hole; and a pin carried on an inner surface of said sleeve and moveable along said path as a result of relative axial movement between said grip and said hub.

11. (new) The knob according to claim 10, wherein a substantial axial extent of said path is located forward of said end wall of said hole.

12. (new) A retractable control knob for an electrical appliance, said control knob comprising:

... a hub having opposite front and rear ends, wherein the rear end is receivable in a seat in a housing of the appliance and engageable with a control pin of the appliance in said seat, said control pin being adapted to control at least one function of the appliance;

a grip angularly fixed to, but axially slidable on, the hub;

a locking mechanism for selective axial connection of the grip to the hub and for blocking said grip at a first axial position and a second axial position axially rearwardly spaced from the first axial position;

an elastic element disposed between said hub and said grip and axially biasing said grip forwardly towards said first axial position, in which the grip projects in cantilever fashion from the front end of the hub and is set, in use, at least partially outside said seat, wherein, in said second axial position, the grip is fitted over the front end of said hub and is retracted, in use, within said seat;

a closed chamber defined between the grip and the hub and having a volume depending on a relative axial position of the grip on the hub;

a sliding seal sealing said closed chamber in an airtight manner; and

a calibrated orifice being carried by any of said hub and said grip for permanently fluidly connecting an interior of said chamber with the external environment for causing a variation in pressure of the air contained in said chamber as a result of an axial movement of the grip with respect to the hub, thereby dampening said axial movement;

wherein

said grip has a concavity facing said hub;

said front end of said hub has a hole opening forwardly and having a rear end wall and a side wall projecting forwardly from said end wall;

a rod carried by said grip extends axially in cantilever fashion in said hole;

a free end of said rod carries said seal which is an annular fluid-tight gasket in sliding and fluid-tight contact with the side wall of the hole, so that the side wall and the end wall of the hole, together with said free end of the rod, define said closed chamber;

said grip further comprises a sleeve coaxial to said rod and slidably fitted on an outer surface of the side wall in order to guide axial sliding movement of the grip with respect to the hub; and

said locking mechanism is provided between the hub and the sleeve at substantially the

same axial position as said closed chamber, thereby reducing an overall axial dimension of said knob.

13. (new) The knob according to claim 12, wherein
said side wall further extends rearwardly beyond said end wall to define said rear end of
said hub, said rear end being hollow to receive therein the pin of the appliance; and
the calibrated orifice is formed through said end wall of said hole.

14. (new) The knob according to claim 12, wherein
said elastic element is a helical spring housed inside said sleeve and compressed between a
shoulder of the hub and an end wall of the grip; and
said side wall of said hole has a front portion which faces said grip and has a reduced outer
diameter to define said shoulder.

15. (new) The knob according to claim 12, wherein said gasket is a bell-shaped lipped
gasket having its concavity facing the grip.

16. (new) The knob according to claim 15, wherein said lipped gasket is fixed to said
free end of said rod via a screw.

17. (new) The knob according to claim 15, wherein said lipped gasket is retained in an
annular seat formed in said free end of said rod.

18. (new) The knob according to claim 14, wherein said rod and said sleeve are
integrally connected by a connecting portion so as to form a single connection element fixedly
snapped within a seat defined by a further sleeve of the grip, said further sleeve extending axially
rearwardly from the end wall of said grip in cantilever fashion inside said grip.

19. (new) The knob according to claim 12, wherein said locking mechanism is provided between the side wall of the hole and the sleeve at substantially the same axial position as said end wall of said hole.

20. (new) The knob according to claim 19, wherein said locking mechanism comprises a desmodromic path formed in an outer surface of the side wall of the hole; and
a pin carried on an inner surface of said sleeve and moveable along said path as a result of relative axial movement between said grip and said hub.

21. (new) The knob according to claim 20, wherein a substantial axial extent of said path is located forward of said end wall of said hole.